



Vasanthi Jayaraman, PhD

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*Glutamate Receptors are the Single Molecule Level*

Dr. Jayaraman's graduate training is in physical chemistry, and she worked on spectroscopic investigations of hemoglobin under the guidance of Dr. Thomas Spiro at Princeton University, and as a postdoctoral associate she used rapid kinetic electrophysiological measurements to study ligand gated ion channels under the guidance of Dr. George Hess at Cornell University. When she started as an independent investigator she was hence in a unique position to be able to combine these two areas of expertise and developed a research program focusing on understanding the role of structure-dynamics in dictating ion channel function. Over the last 23 years she has developed and used cutting edge spectroscopic tools to gain an understanding of conformational changes in membrane proteins with a focus on ionotropic glutamate receptors. These studies have provided insight into changes starting at the level of specific ligand-protein non-covalent interactions, which control conformational changes in the protein, and ultimately dictate function. During this time she has trained 13 doctoral students, 15 postdoctoral fellows and several undergraduate and high school students. She has mentored several women and minority students, and have played an active role in the Committee of Professional Opportunities for Women in the Biophysical Society, organizing career development events. Most recently she started the Women Faculty Forum at the McGovern Medical School at The University of Texas Health Science Center, and made significant strides; for instance they were able to initialize day care for sick faculty children and support travel for women faculty to career development opportunities. She has also been actively involved in the Biophysical Society where she was elected to serve on the Executive Board, she was the co-chair for the 2016 Annual Biophysical Society Meeting, and she is an associate editor for the Channels and Transporters section of the Biophysical Journal.